

flash and a spark, and the shikra dropped to the ground, dead. Apparently, through the rodent's tail, the body of the shikra was earthed, resulting in its death by electrocution. The predator had become a prey of man's electric power. Both the animals were collected. The rodent turned out to

be an Indian desert gerbil, *Meriones hurrianae* (Jerdon).

June 11, 1997

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7. MYCOTOXICOSIS - A THREAT TO WINTERING CRANES IN SAURASHTRA, GUJARAT.

The Saurashtra region (21° 10' - 24° 45' N, lat.; 68° 10' - 70° 30' E long.) of Gujarat state, India, is the most important wintering ground for the demoiselle crane *Anthropoides virgo* and common crane *Grus grus*. Several hundred thousand cranes winter in this region. In the wintering ground, the cranes mainly feed on groundnut *Arachis hypogea*. Therefore, a research project on "Assessment of crop depredation by cranes in the groundnut cropfields" was carried out in collaboration with the Indian Council of Agricultural Research, New Delhi, for three years. Field study commenced in October, 1989 and during the study period we recorded 32 cranes with peculiar symptoms, which resulted in their mortality within 2-3 days. The symptoms observed were paralysis of wing and neck, reluctance to feed, weight loss and death within 2-3 days. Dein (1989) reported that there are four major factors, bacterial, fungal, viral and animal parasites, which affect cranes both in captivity and in the wild. The cranes were probably suffering from mycotoxicosis, caused by the fungus *Aspergillus flavus*, which produces a toxin called aflatoxin. The fungus is a normal constituent of the microflora in air, soil and water and is associated with living or dead plants and animals throughout the world. Aflatoxins are carcinogenic and mutagenic, and were implicated in an outbreak of hepatitis in tribal areas of more

than 200 villages of Rajasthan and Gujarat in 1974. It was observed that groundnut and its products are a favourable substrate for the growth of *A. flavus*, when its moisture content exceeds 9% (ICAR Report 1987).

In Saurashtra, the groundnut crop is harvested during July and October. Hence, at the arrival time of the cranes, most of the harvested fields have left over groundnut pods. During winter, the moisture content of the soil and groundnut may increase, which favours the growth of *A. flavus*. Thus, mycotoxicosis reached a peak during January and February. Furthermore, during our study period we visited only 30% of the waterbodies of Saurashtra region, in which we recorded 32 diseased cranes. Hence, there are possibilities of more cranes with similar disease. The afflicted cranes are unable to move due to paralysis of their wings and legs, and fall easy prey to such predators as the village dog, fox and jackal.

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